
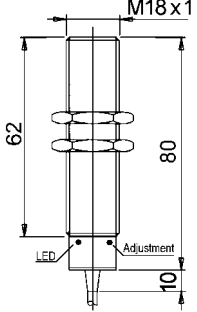
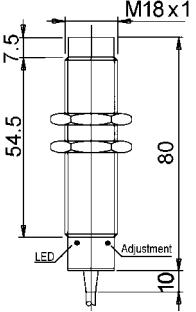
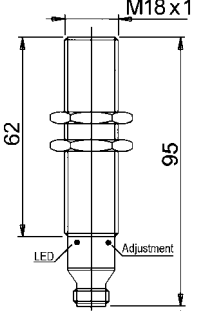
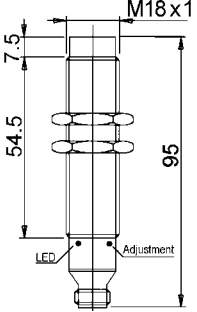


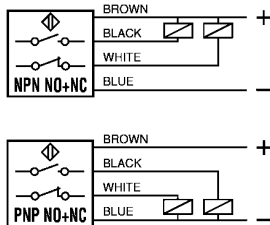
18 mm Diameter DC 4 Wire

FEATURES:

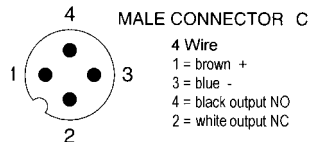
- Short circuit & reverse polarity protection
- Protection degree IP65
- LED function indicator
- 5 and 10 meter cable lengths available upon request

		MODEL			
Output Function	NPN, NO+NC	S5000	S5022	S5010	S5032
	PNP, NO+NC	S5001	S5023	S5011	S5033
Dimensions: mm 1 mm = .03937" 1" = 25.4 mm 					
Operating Distance (Sn)		0-5 mm (Adjustable)	0-10 mm (Adjustable)	0-5 mm (Adjustable)	0-10 mm (Adjustable)
External Diameter		M18 x 1			
Power Supply		10 - 40 Vdc			
Max Switching Current		200 mA			
Power Drain (24Vdc)		≤ 10 mA			
Voltage Drop (sensor ON)		< 1.8 V			
Short Circuit Protection		Yes			
Operating Frequency		10 Hz			
Repeatability (%Sn)		<10%			
Hysteresis (%Sn)		Depends on (Sn), ≤ 20%			
Case		Nickel-plated brass	Plastic	Nickel-plated brass	Plastic
Flush Mounting		Yes	No	Yes	No
Protection Degree		IP 67			
Operating Temperature		- 20 to +70 °C			
Output Connection		Cable PVC: L = 3 m		Connector C	
Protective Housing Model			S5910		S5910

WIRING:



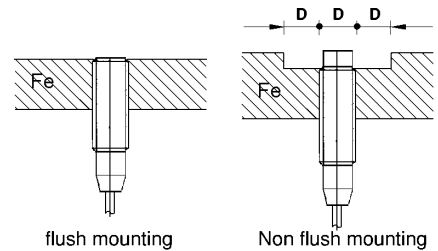
CONNECTOR:



MATING CONNECTORS:

- | ID# | Type | Description |
|-----------|------------------------------|-----------------|
| 4 wire | | |
| S3496/2 C | right angle w/ 2 meter cable | |
| S3496 C | right angle w/ 5 meter cable | |
| S3499/2 C | straight w/ 2 meter cable | |
| S3499 C | straight w/ 5 meter cable | |
| 030502C | right angle, terminal screws | field wire-able |
| 030503C | straight, terminal screws | field wire-able |

MOUNTING:



Capacitive

18 mm Diameter AC

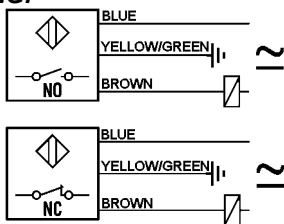
FEATURES:

- Protection degree IP65
- LED function indicator
- Sensitivity adjustment
- 5 and 10 meter cable lengths available upon request

		MODEL			
Output Function	NO	S5040	S5062	S5050	S5072
	NC	S5041	S5063	S5051	S5073
Dimensions: mm 1" = 25.4 mm 1 mm = .03937"					
Operating Distance (Sn)		0-5 mm (Adjustable)	0-10 mm (Adjustable)	0-5 mm (Adjustable)	0-10 mm (Adjustable)
External Diameter		M18 x 1			
Power Supply		20 - 250 Vac			
Max Switching Current		300 mA			
Min Switching Current		10 mA			
Max Peak Current for 20ms		1.5 A			
Residual Current		≤ 1 mA			
Voltage Drop		< 6 V			
Operating Frequency		10 Hz			
Repeatability (%Sn)		<10%			
Hysteresis (%Sn)		Depends on (Sn), ≤ 20%			
Case		Nickel-plated brass	Grey Plastic	Nickel-plated brass	Grey Plastic
Flush Mounting		Yes	No	Yes	No
Protection Degree		IP 65			
Operating Temperature		- 20 to +70 °C			
Output Connection		Cable PVC: L = 3 m		Connector C	
Protective Housing Model		S5910		S5910	

Attention must be paid to the minimum switching current, residual current and voltage drop when selecting low consumption relays or high impedance electronic controls to be used with these sensors. They are adapted for inputs of programmable controllers.

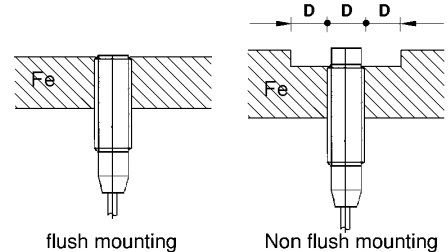
WIRING:



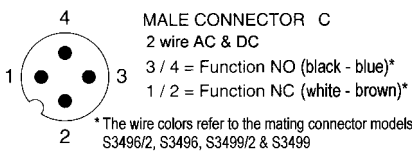
MATING CONNECTORS:

ID#	Type	Description
4 wire		
S3496/2	C	right angle w/ 2 meter cable
S3496	C	right angle w/ 5 meter cable
S3499/2	C	straight w/ 2 meter cable
S3499	C	straight w/ 5 meter cable
030502	C	right angle, terminal screws field wire-able
030503	C	straight, terminal screws field wire-able

MOUNTING:




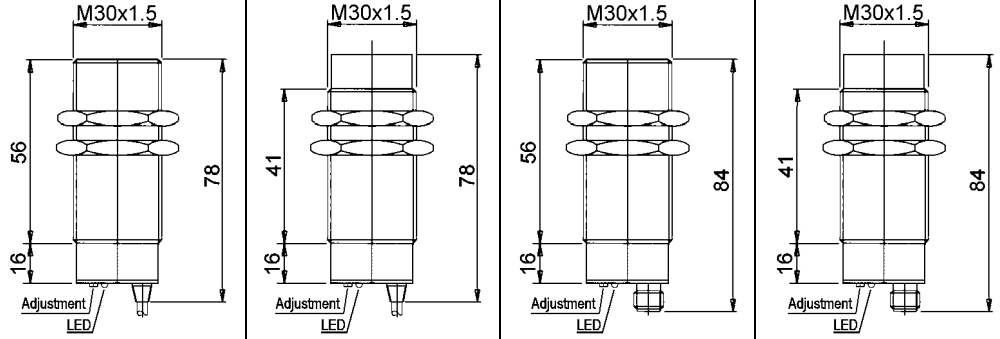
CONNECTOR:



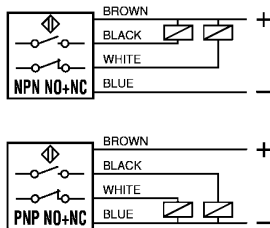
30 mm Diameter DC 4 Wire

FEATURES:

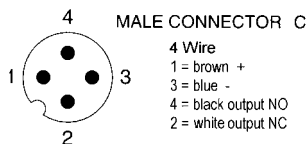
- Short circuit & reverse polarity protection
- Protection degree IP67: dust tight and protection from the effects of immersion
- LED function indicator
- 5 and 10 meter cable lengths available upon request

		MODEL			
Output Function	NPN, NO+NC	S5100	S5122	S5110	S5132
	PNP, NO+NC	S5101	S5123	S5111	S5133
Dimensions: mm 1" = 25.4 mm 1 mm = .03937" 					
Operating Distance (Sn)		0-20 mm (Adjustable)	0-25 mm (Adjustable)	0-20 mm (Adjustable)	0-25 mm (Adjustable)
External Diameter		M30 x 1.5			
Power Supply		10 – 60Vdc			
Max Switching Current		200 mA			
Power Drain (24Vdc)		≤ 10 mA			
Voltage Drop (sensor ON)		< 1.8 V			
Short Circuit Protection		Yes			
Operating Frequency		10 Hz			
Repeatability (%Sn)		<10%			
Hysteresis (%Sn)		Depends on (Sn), ≤ 20%			
Case		Nickel-plated brass	Plastic	Nickel-plated brass	Plastic
Flush Mounting		Yes	No	Yes	No
Protection Degree		IP 67			
Operating Temperature		- 20 to +70 °C			
Output Connection		Cable PVC: L = 3 m		Connector C	
Protective Housing Model			S5913		S5913

WIRING:



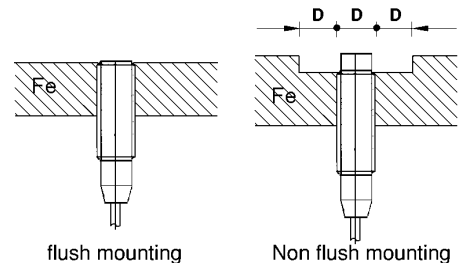
CONNECTOR:



MATING CONNECTORS:

- | | | |
|-----------|------------------------------|-----------------|
| ID# | Type | Description |
| 4 wire | | |
| S3496/2 C | right angle w/ 2 meter cable | |
| S3496 C | right angle w/ 5 meter cable | |
| S3499/2 C | straight w/ 2 meter cable | |
| S3499 C | straight w/ 5 meter cable | |
| 030502C | right angle, terminal screws | field wire-able |
| 030503C | straight, terminal screws | field wire-able |

MOUNTING:



Capacitive

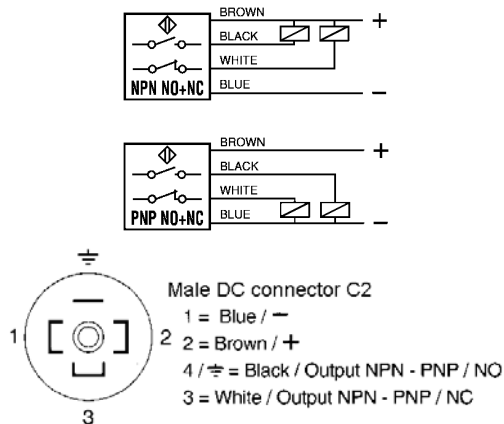
30 mm Diameter DC 4 Wire

FEATURES:

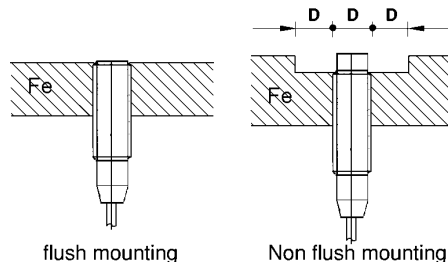
- Short circuit & reverse polarity protection
- Protection degree IP67: dust tight and protection from the effects of immersion
- LED function indicator
- Field wire-able connector included

		MODEL		
Output Function	NPN, NO+NC	S5114	S5116	S5134
	PNP, NO+NC	S5115	S5117	S5135
Dimensions: mm 1" = 25.4 mm 1 mm = .03937"				
Operating Distance (Sn)		0-20 mm (Adjustable)	0-25 mm (Adjustable)	0-25 mm (Adjustable)
External Diameter		M30 x 1.5		
Power Supply		10 - 55Vdc		
Max Switching Current		300 mA		
Power Drain (24Vdc)		≤ 10 mA		
Voltage Drop (sensor ON)		< 1.8 V		
Short Circuit Protection		Yes		
Operating Frequency		10 Hz		
Repeatability (%Sn)		<10%		
Hysteresis (%Sn)		Depends on (Sn), ≤ 20%		
Case		Nickel-plated brass		Plastic
Flush Mounting		Yes	No	No
Protection Degree		IP 65		
Operating Temperature		- 20 to +70 °C		
Output Connection		Connector included		
Protective Housing Model				S5912

WIRING:



MOUNTING:



30 mm Diameter AC/DC NO/NC Select

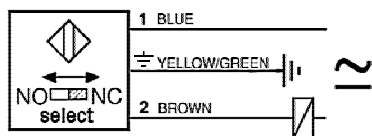
FEATURES:

- Short circuit protection up to 50V in DC
- Protection degree IP67: dust tight and protection from the effects of immersion
- LED function indicator
- 5 and 10 meter cable lengths available upon request

		MODEL			
Output Function	NO/NC Select	S5140	S5170	S5141	S5171
Dimensions: mm 1" = 25.4 mm 1 mm = .03937"					
Operating Distance (Sn)		0-20 mm (Adjustable)	0-25 mm (Adjustable)	0-20 mm (Adjustable)	0-25 mm (Adjustable)
External Diameter		M30 x 1.5			
Power Supply		20 - 250 Vac/dc			
Max Switching Current		500 mA			
Min Switching Current		10 mA			
Max Peak Current for 20ms		1.5 A			
Residual Current		≤ 2 mA			
Voltage Drop		< 6 V			
Short Circuit Protection		Yes up to 50V in DC			
Operating Frequency		10 Hz			
Repeatability (%Sn)		<10%			
Hysteresis (%Sn)		Depends on (Sn), ≤ 20%			
Case		Nickel-plated brass	Plastic	Nickel-plated brass	Plastic
Flush Mounting		Yes	No	Yes	No
Protection Degree		IP 65			
Operating Temperature		- 20 to +70 °C			
Output Connection		Cable PVC: L = 2 m		Connector included	
Protective Housing Model			S5911		S5912

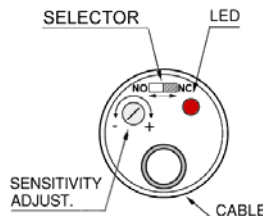
Attention must be paid to the minimum switching current, residual current and voltage drop when selecting low consumption relays or high impedance electronic controls to be used with these sensors. They are adapted for inputs of programmable controllers.

WIRING:

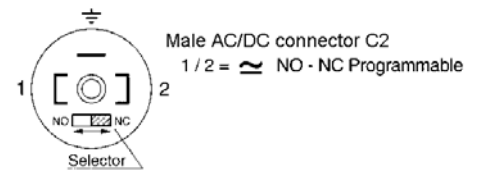


SELECTOR (NO/NC)

Before giving power to the sensor, program the sensor using the selector switch to the required function of NO (normally open) or NC (normally closed)



Sensor with connector removed



Capacitive

30 mm Diameter AC/DC

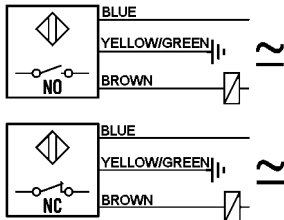
FEATURES:

- Short circuit & reverse polarity protection
- Protection degree IP67: dust tight and protection from the effects of immersion
- LED function indicator
- 5 and 10 meter cable lengths available upon request

		MODEL			
Output Function	NO	S5150	S5182	S5160	S5192
	NC	S5151	S5183	S5161	S5193
Dimensions: mm 1" = 25.4 mm 1 mm = .03937"					
Operating Distance (Sn)		0-20 mm (Adjustable)	0-25 mm (Adjustable)	0-20 mm (Adjustable)	0-25 mm (Adjustable)
External Diameter		M30 x 1.5			
Power Supply		20 - 250 Vac/dc			
Max Switching Current		300 mA			
Min Switching Current		10 mA			
Max Peak Current for 20ms		1.5 A			
Residual Current		≤ 2 mA			
Voltage Drop		≤ 4 V			
Short Circuit Protection		Yes			
Operating Frequency		10 Hz			
Repeatability (%Sn)		<10%			
Hysteresis (%Sn)		Depends on (Sn), ≤ 20%			
Case		Nickel-plated brass	Grey Plastic	Nickel-plated brass	Grey Plastic
Flush Mounting		Yes	No	Yes	No
Protection Degree		IP 65			
Operating Temperature		- 20 to +70 °C			
Output Connection		Cable PVC: L = 3 m		Connector C	
Protective Housing Model			S5913		S5913

Attention must be paid to the minimum switching current, residual current and voltage drop when selecting low consumption relays or high impedance electronic controls to be used with these sensors. They are adapted for inputs of programmable controllers.

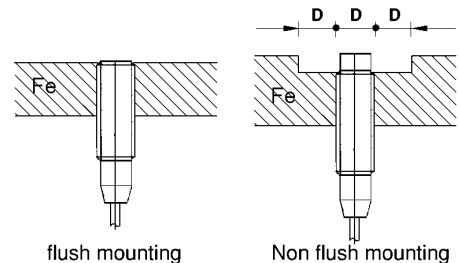
WIRING:



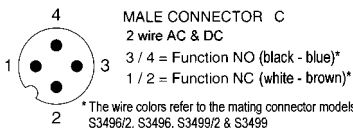
MATING CONNECTORS:

ID#	Type	Description
4 wire		
S3496/2	C	right angle w/ 2 meter cable
S3496	C	right angle w/ 5 meter cable
S3499/2	C	straight w/ 2 meter cable
S3499	C	straight w/ 5 meter cable
030502	C	right angle, terminal screws field wire-able
030503	C	straight, terminal screws field wire-able

MOUNTING:



CONNECTOR:

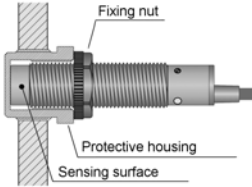


Protective Housing for Capacitive Sensors

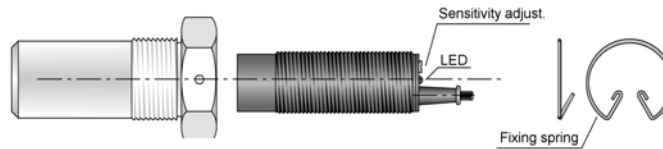
This housing is a waterproof protective cover for select capacitive sensors. The housing is made of a non-toxic material (POM). This type of installation permits a sensor to be rapidly removed for testing without the loss of material from the container and protects the sensor from abrasion. Furthermore, the use of the housing eliminates, to a large degree, variation in the sensitivity of the sensor due to deposits of material. See sensor datasheet for the model that works with a particular sensor.



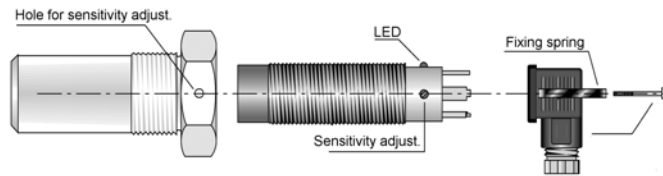
Model: S5910 (18mm)



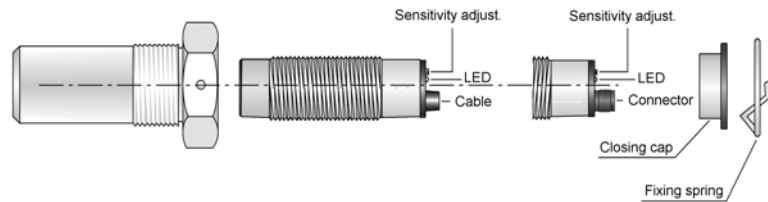
Model: S5911 (30mm)



Model: S5912 (30mm)

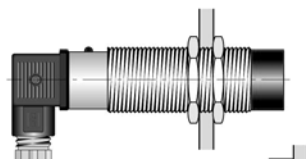


Model: S5913 (30mm)

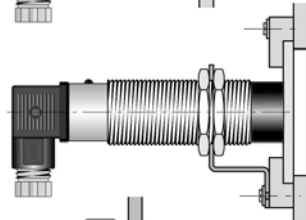


EXAMPLE

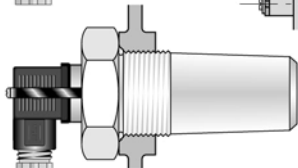
1
TRADITIONAL
INSTALLATION
IN THE CONTAINER
WALL



2
INSTALLATION WITH
A PLASTIC WINDOW

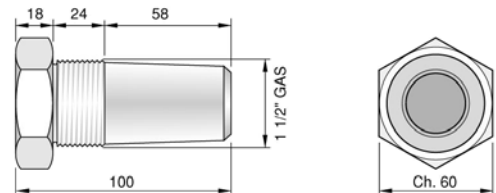


3
INSTALLATION WITH
PROTECTIVE HOUSING

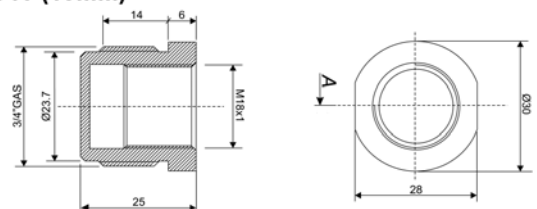


DIMENSIONS (mm)

S5911, S5912 and S5913 (30mm)

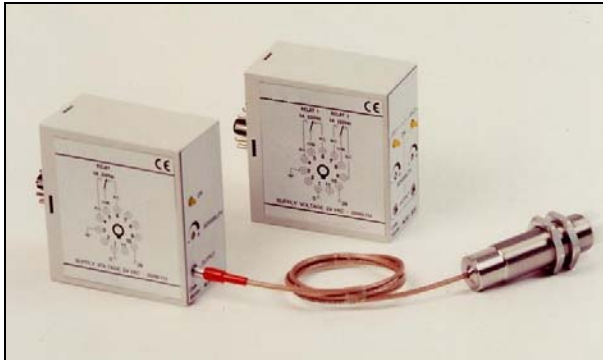


S5910 (18mm)



Capacitive

High Temperature Capacitive



FEATURES:

- Sensor temperature range -200 to +250° C (-382 to +482° F)
- Operating distance of 5 or 15mm
- Sensitivity adjustment
- Stainless steel sensor housing
- 18 and 30mm diameters
- One or two sensor amplifiers
- Sensor protection degree IP68: dust tight and protection against submersion

APPLICATIONS:

Typical applications include the level control of hot materials such as liquids, oils, powder and plastic granules. These sensors can also be used to sense solid metallic and non-metallic bodies positioned in areas of high temperature.

DESCRIPTION:

These high temperature sensors have an amplifier completely separate from the sensor. This allows the sensor to withstand temperatures from -200 to +250°C (-382 to +482°F). The amplifier is supplied in two different types, models S3624 & S3625, which is suitable for one sensor, and models S3626 & S3627, which is suitable for two sensors. The model S3624 & S3625 can be supplied with delayed sensing. The sensors are available in 18mm and 30mm diameters, made of stainless steel and PTFE. Each sensor's operating distance is adjustable. This sensitivity regulation is useful in applications such as detection of full containers and non-detection of empty containers.

OPERATING PRINCIPLE:

Capacitive proximity sensors use an oscillating field that can sense conductive and non-conductive materials (metals, liquids, glass, plastic, wood, paper and rubber). When an object enters this field, an electronic circuit begins to oscillate. The rise or fall of the oscillation is identified by a threshold circuit that drives an amplifier for the operation of an external load. The operating distance of the sensor depends on the target's shape and size and is strictly linked to the nature of the material (Table 1).

Capacitive sensors	
Metal	~ 1 x Sn
Water	~ 1 x Sn
Plastic	~ 0.5 x Sn
Glass	~ 0.5 x Sn
Wood	~ 0.4 x Sn

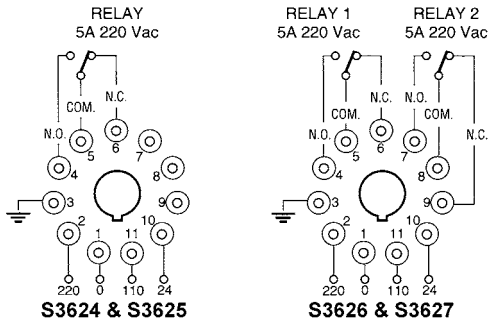
Table 1. Sensitivity with different materials present. Sn=operating distance.

SPECIFICATIONS:

Sensor Model	S3620 M18 x 1	S3621 M18 x 1, 5m cable	S3622 M30 x 1.5	S3623 M30 x 1.5, 5m cable
Operating distance	5mm		15mm	
Temperature range	-200 to +250 °C (-382 to +482° F)			
Degree of protection	IP68			
Housing	Housing and nuts Stainless steel AISI 303, Sensing part in PTFE			
Flush mounting	No			
Output connection	L=2m w/ plug connector	L=5m w/ plug connector	L=2m w/ plug connector	L=5m w/ plug connector

Amplifier Model	S3624	S3625	S3626	S3627
Number of sensors	1		2	
Power supply	24 Vac 50-60 Hz	110/220 Vac 50-60 Hz	24 Vac 50-60 Hz	110/220 Vac 50-60 Hz
Absorption	3 VA			
Operation indicator	Yellow LED x 1		Yellow LED x 2	
Temperature range	-20 to +60 °C (-4 to +140 °F)			
Output relay	1 relay - changeover, 5A @ 220Vac		2 relays - changeover, 5A @ 220Vac	
Housing	ABS			
Degree of protection	IP40			
Sensitivity adjustment	Incorporated			

WIRING



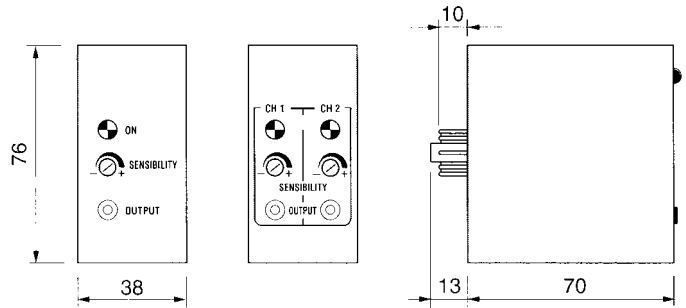
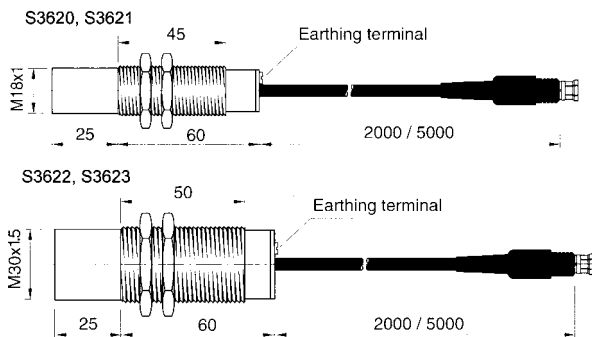
INSTALLATION INSTRUCTIONS

If the material to be controlled is in a metallic container, the container and terminal 3 of the amplifier must be grounded.

If the container is non-metallic, connect terminal 3 of the amplifier and the earthing terminal on sensor body to ground.

The connection wire between the sensor and the amplifier must be separated from the power supply.

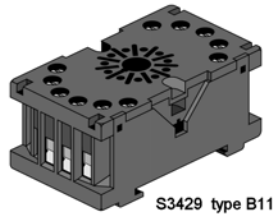
DIMENSIONS (mm) 1mm = .03937"



For a correct fixing of the amplifiers socket S3429 type B11 and fixing spring type S3430 MF are required.

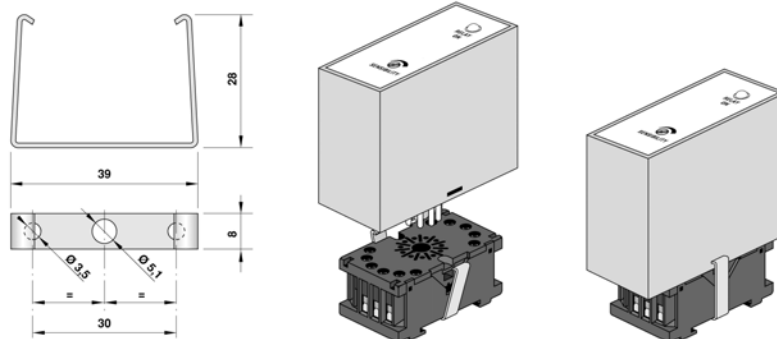
ACCESSORIES

SOCKET FOR AMPLIFIERS - POWER SUPPLIES



socket for panel or DIN rail mounting.

FIXING SPRING S3430 MF



For a correct fixing of the units it is recommended to use socket S3429 type B11 with fixing spring S3430 MF.

Capacitive